IN THE CLAIMS

Please substitute claims 1-23 with the following:

1. (Currently Amended) A ~~computer-implemented~~ method in a recording medium having a program for constructing a complex network, the method comprising the steps of:

defining a tetragonal lattice, wherein the tetragonal lattice comprises a plurality of lattice sites;

growing a first fractal structure from a first of the plurality of lattice sites, wherein the step of growing the first fractal structure comprises the steps of:

identifying the lattice sites adjacent to the first lattice site;

for each lattice site adjacent to the first lattice site;

determining the probability that the lattice site is selected as part of the first fractal structure;

selecting a next lattice site based on the probability that the lattice site is selected as part of the first fractal structure; and

adding the next lattice site to the first fractal structure;

until the first fractal structure is complete:

identifying the lattice sites adjacent to the next lattice site;

for each lattice site adjacent to the next lattice site;

determining the probability that the lattice site is selected as part of the first fractal structure;

selecting the next lattice site based on the probability that the lattice site is selected as part of the first fractal structure; and

adding the next lattice site to the first fractal structure;

growing a second fractal structure from a second of the plurality of lattice sites, wherein the step of growing the second fractal structure comprises the steps of:

identifying the lattice sites adjacent to the second lattice site;

for each lattice site adjacent to the second lattice site;

determining the probability that the lattice site is selected as part of the second fractal structure;

selecting another lattice site based on the probability that the lattice site is selected as part of the second fractal structure;

adding the other lattice site to the second fractal structure;

until the second fractal structure is complete:

identifying the lattice sites adjacent to the other lattice site;

for each lattice site adjacent to the other lattice site;

determining the probability that the lattice site is selected as part of the second fractal structure;

selecting the other lattice site based on the probability that the lattice site is selected as part of the second fractal structure; and

adding the other lattice site to the second fractal structure; and

coupling said first fractal structure to said second fractal structure during the step of growing said second fractal structure.

2. (Currently Amended) The ~~computer-implemented~~ method according to claim 1, further comprising the step of:

determining a growth rate based on a probability that a material reaches a portion already grown from said second start site in a diffusion process, and a probability that a growth promotion factor reaches the portion already grown from portions grown from said second start site in a diffusion process, wherein said first fractal structure is grown at said growth rate.

3. (Currently Amended) The ~~computer-implemented~~ method according to claim 2, wherein said growth rate is proportional to a product of a power function of the probability that a material reaches a portion already grown from said second start site in a diffusion process, and a power function of the probability that a growth promotion factor reaches the portion already grown from portions grown from said second start site in a diffusion process.

4. (Currently Amended) The ~~computer-implemented~~ method according to claim 2, further comprising the step of adjusting a parameter to control fractal property, self-similarity, complexity of the structure, or the number of coupling.

5. (Currently Amended) The ~~computer-implemented~~ method according to claim 3, further comprising the step of adjusting a parameter to control fractal property, self-similarity, complexity of the structure, or the number of coupling.

6. (Currently Amended) The ~~computer-implemented~~ method according to claim 4, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said first fractal structure in an appropriate relation to a site at infinity.

7. (Currently Amended) The ~~computer-implemented~~ method according to claim 5, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said first fractal structure in an appropriate relation to a site at infinity.

8. (Currently Amended) The ~~computer-implemented~~ method according to claim 1, wherein an anisotropy is introduced into a space in which said fractal structures are grown.

9. (Currently Amended) The ~~computer-implemented~~ method according to claim 2, wherein diffusion coefficient in a space in which said fractal structures are grown has an anisotropy.

10. (Currently Amended) The ~~computer-implemented~~ method according to claim 8, further comprising the step of adjusting a parameter to control fractal property, self-similarity, complexity of the structure, or the number of coupling.

11. (Currently Amended) The ~~computer-implemented~~ method according to claim 9, further comprising the step of adjusting a parameter to control fractal property, self-similarity, complexity of the structure, or the number of coupling.

12. (Currently Amended) The ~~computer-implemented~~ method according to claim 1, further comprising the step of:

determining a growth rate based on a probability that a material reaches a portion already grown from said first start site in a diffusion process, and a probability that a growth promotion factor reaches the portion already grown from portions grown from said first start site in a diffusion process, wherein said second fractal structure is grown at said growth rate.

13. (Currently Amended) The ~~computer-implemented~~ method according to claim 12, wherein said growth rate is proportional to a product of a power function of the probability that a

material reaches a portion already grown from said first start site in a diffusion process, and a power function of the probability that a growth promotion factor reaches the portion already grown from portions grown from said first start site in a diffusion process.

14. (Currently Amended) The ~~computer-implemented~~ method according to claim 12, further comprising the step of adjusting a parameter to control fractal property, self-similarity, complexity of the structure, or the number of coupling.

15. (Currently Amended) The ~~computer-implemented~~ method according to claim 13, further comprising the step of adjusting a parameter to control fractal property, self-similarity, complexity of the structure, or the number of coupling.

16. (Currently Amended) The ~~computer-implemented~~ method according to claim 14, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said first fractal structure in an appropriate relation to a site at infinity.

17. (Currently Amended) The ~~computer-implemented~~ method according to claim 15, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said first fractal structure in an appropriate relation to a site at infinity.

18. (Currently Amended) The ~~computer-implemented~~ method according to claim 14, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said second fractal structure in an appropriate relation to a site at infinity.

19. (Currently Amended) The ~~computer-implemented~~ method according to claim 15, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said second fractal structure in an appropriate relation to a site at infinity.

20. (Currently Amended) The ~~computer-implemented~~ method according to claim 4, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said second fractal structure in an appropriate relation to a site at infinity.

21. (Currently Amended) The ~~computer-implemented~~ method according to claim 5, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said second fractal structure in an appropriate relation to a site at infinity.

22. (Currently Amended) The ~~computer-implemented~~ method according to claim 12, wherein diffusion coefficient in a space in which said fractal structures are grown has an anisotropy.

23. (Currently Amended) The ~~computer-implemented~~ method according to claim 22, further comprising the step of adjusting a parameter to control fractal property, self-similarity, complexity of the structure, or the number of coupling.